

**FACTORS AFFECTING EFFECTIVE COMMUNICATION BETWEEN  
UNDERGRADUATE NURSING STUDENTS AND PATIENTS IN TERTIARY CARE  
HOSPITALS, HYDERABAD**

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**Abstract**

**Background:** Effective communication is essential for therapeutic relationships and quality patient care in nursing practice. **Objective:** To explore undergraduate nursing students' perceptions of factors affecting effective communication with patients at tertiary care hospitals, Hyderabad, Sindh. **Methods:** A cross-sectional descriptive study was conducted among 151 undergraduate nursing students selected through purposive sampling. Data were collected using a structured 5-point Likert scale questionnaire via Google Forms. Reliability was high (Cronbach's alpha = 0.898). Data were analyzed using SPSS version 27.0, applying descriptive statistics and multiple

linear regression.

**Results:** Communication barriers were reported at a moderate to high level (mean = 72.82 ± 12.37). Patient-related barriers were the most significant (mean = 40.72 ± 7.22), followed by student-related and environmental factors. Major issues included patient anxiety, pain, negative attitudes, and lack of awareness of students' roles. Socio-cultural differences also contributed. No significant association was found between demographic variables and communication barriers (p = 0.784, R<sup>2</sup> = 0.012).

**Conclusion:** Patient-related factors were identified as the primary barriers. Strengthening communication training, promoting cultural sensitivity, and implementing supportive hospital policies are recommended to improve communication skills and patient care outcomes.

**INTRODUCTION**

Effective communication is a fundamental element of healthcare delivery and is essential for ensuring safe, high-quality patient care. It is a continuous process that supports therapeutic relationships, improves patient satisfaction, enhances recovery outcome [1, 2].

Communication is also a core clinical competency required for interprofessional collaboration and nursing practice [2, 3]. However, communication failures remain a major global concern and are strongly associated with adverse clinical outcomes, increased healthcare risks, and patient safety issues [4]. Poor communication also reduces patient satisfaction and engagement in care, highlighting its importance in clinical practice [5]. Nursing is inherently communication-based, as nurses continuously interact with patients, families, and healthcare teams. Undergraduate nursing students develop communication skills during clinical placements where theory is applied in real practice settings. Effective communication is strongly linked with clinical competence [6]. However, students often face barriers that hinder effective communication, especially in tertiary care hospitals. Internal factors such as lack of confidence, emotional instability, and communication anxiety significantly affect students' ability to interact with patients. Higher anxiety levels are associated with avoidance of communication and difficulty in developing nurse-patient relationships [7]. Emotional intelligence is also an important determinant of communication competence [6]. In tertiary care hospitals of Hyderabad, external and environmental factors further restrict communication. Heavy workload, overcrowded wards, limited staff, time constraints [1, 5]. Environmental issues such as noise, lack of privacy, and busy clinical conditions further limit effective communication [2, 12]. Sociocultural and linguistic diversity in Pakistan adds another layer of complexity. Differences in language, literacy, cultural values, and religious beliefs often lead to misunderstandings between students and patients. Language and cultural diversity are widely reported barriers to effective nurse-patient communication in multicultural settings [1, 8]. Gender norms and cultural expectations may also restrict open communication in certain situations [11]. Interpersonal and psychological factors also play a key role. Empathy, compassion, self-efficacy, and emotional awareness are strongly associated with communication competence. A positive relationship exists between communication skills and compassion, indicating that communication reflects both technical ability and caring behavior [9]. However, emotional challenges such as alexithymia and lack of self-confidence can hinder effective communication [14]. A theory-practice gap and hierarchical clinical environments may further discourage students from active communication, contributing to a "culture of silence"[5]. As a result,

students often struggle with patient assessment, data collection, and health education, which affects their clinical learning and performance. Improving communication competence is therefore essential for both educational and clinical outcomes [2]. Simulation-based learning is widely recognized as an effective strategy for improving communication skills, showing significant improvements in confidence and competence [2]. Emerging technologies such as artificial intelligence and virtual reality also support learning, although concerns remain regarding ethics, privacy, and reduced human empathy [3]. Evidence on demographic influences remains inconsistent. Some studies show associations with age, marital status, and qualification [11], while others report no significant relationship ( $p = 0.784$ ), suggesting communication barriers may be universal among students. Despite extensive literature, most studies focus on healthcare professionals, while student and patient perspectives remain underexplored. There is also limited evidence from tertiary care hospital settings in Pakistan, particularly Hyderabad.

#### MATERIALS AND METHODS:

A cross-sectional descriptive study design was employed to identify perceived barriers to effective communication among undergraduate nursing students. The study was conducted in two selected private nursing institutions in Hyderabad, Sindh, Pakistan, which are affiliated with tertiary care hospitals where students receive clinical training. The target population consisted of 248 undergraduate nursing students enrolled in these institutions. The sample size of 151 was determined using the Raosoft sample size calculator at a 95% confidence level, 5% margin of error, and 50% response distribution. Finite population correction was applied to ensure accuracy, and the final sample size was considered adequate for reliable analysis. A non-probability purposive sampling technique was used, and participants were selected based on predefined eligibility criteria during the data collection period. Undergraduate nursing students enrolled in nursing programs with clinical exposure and willing to participate were included, while students without clinical exposure (such as first-year or first-semester students) and those who refused consent were excluded. Data were collected using a structured questionnaire

consisting of two sections, administered online via Google Forms. Responses were recorded on a 5-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree." The questionnaire measured three domains: student-related barriers (Q21–Q24), patient-related barriers (Q10–Q17, Q19–Q20), and environment-related barriers (Q18, Q23). The tool demonstrated acceptable to excellent internal consistency in previous studies, with Cronbach's alpha values ranging from 0.70 to 0.94 [15, 16]. In the present study, the modified instrument showed excellent reliability with a Cronbach's alpha of 0.898. Ethical approval was obtained from the concerned institutional authorities before data collection. Electronic informed consent was obtained from all participants, and confidentiality, anonymity, and voluntary participation were ensured. Participants were informed of their right to withdraw from the study at any stage without any consequences. Data were analyzed using IBM SPSS Statistics version 27.0. Descriptive statistics, including frequency, percentage, mean, and standard deviation, were used to summarize demographic variables and study findings. Inferential statistics, including multiple regression analysis, were applied to determine factors affecting communication between nursing students and patients, with a p-value of <0.05 considered statistically significant.

## RESULTS:

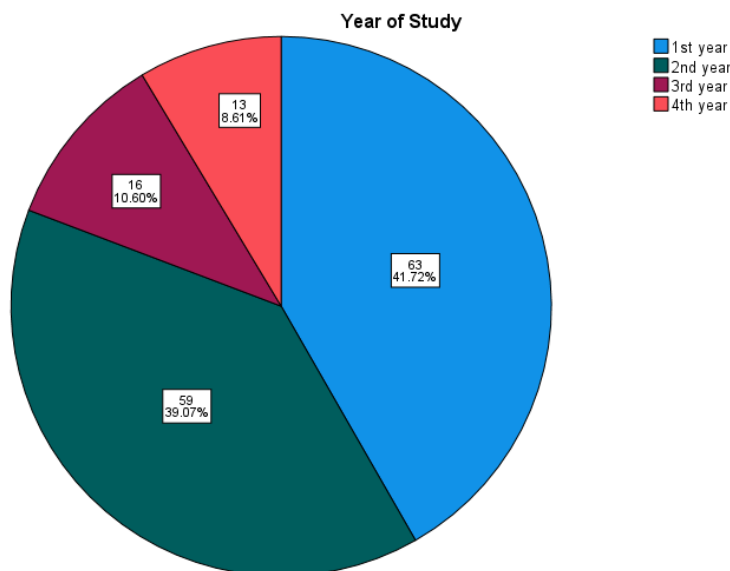
Table 1: Demographic Profile of the Study Participants (n= 151)

Variable	Category	Frequency (n)	Percentage (%)
Age	18–19 years	32	21.2
	20–23 years	95	62.9
	24 years and above	24	15.9
Gender	Male	116	76.8
	Female	35	23.2
Year of Study	1st Year	63	41.7
	2nd Year	59	39.1
	3rd Year	16	10.6
	4th Year	13	8.6

Clinical Experience	Less than 6 months	74	49.0
	6 months – 1 year	38	25.2
	1 year and above	39	25.8

151 subjects with complete data and no missing values for any variable were included in this study. Age-wise, 62.9% of respondents were between the ages of 20 and 23, 21.2% were between the ages of 18 and 19, and 15.9% were older than 24. In terms of gender, 76.8% of participants were male, 23.2% were female, and 41% were first-year students, 39.1% were second-year students, 10.6% were third-year students, and the remaining 8.6% were fourth-year students. Based on the students' clinical experience regarding communication barriers, approximately half of the participants had less than six months of experience, 25.2% had six months to a year, and the remaining 25.8% had more than a year of experience. Additionally, this descriptive profile shows that the average participant was a male student in his early twenties who had no clinical experience and was enrolled in his first or second year of study.

Figure 1: Year of Study Distribution



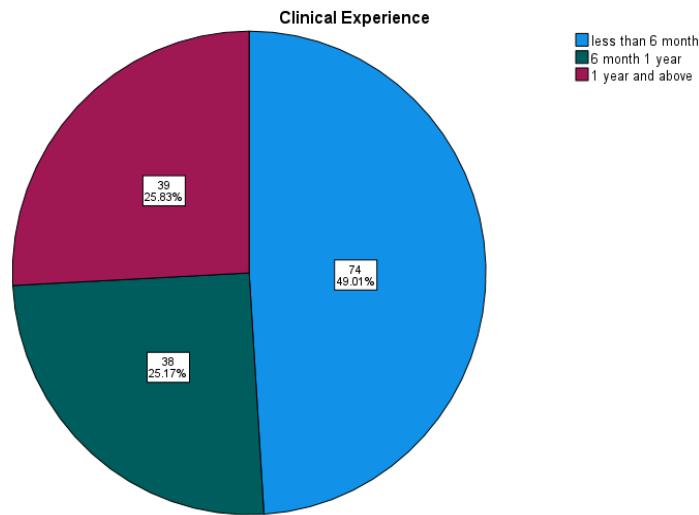
This chart shows the distribution of respondents by their year of study:

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- 1st year: 63 respondents (41.72%) – Largest group
- 2nd year: 59 respondents (39.07%) – Second largest
- 3rd year: 16 respondents (10.60%)
- 4th year: 13 respondents (8.61%) – Smallest group

Figure 2: Clinical Experience Distribution



This chart shows the distribution of respondents by their clinical experience:

- **Less than 6 months:** 74 respondents (49.01%) – Largest group
- **6 months to 1 year:** 38 respondents (25.17%)
- **1 year and above:** 39 respondents (25.83%)

Table 2: Descriptive Statistics of Participants' Age, Year of Study, and Perceived Barriers (n = 151)

Variable	Mean $\pm$ SD	Median (Mode)	Interpretation
Age (years)	21.64 $\pm$ 2.64	21 (21)	Most students around 21 years old
Gender (1=Male/2=Female)	1.23 $\pm$ 0.42	1 (1)	Majority in category 1
Year of Study	1.86 $\pm$ 0.92	2 (1)	Most students in 2nd year
Student-related barriers	17.93 $\pm$ 3.45	18 (20)	Moderate perceived barrier
Patient-related barriers	40.72 $\pm$ 7.22	42 (44)	Highest perceived barrier
Environment-related barriers	14.17 $\pm$ 2.92	15 (16)	Moderate perceived barrier

This study of 151 participants found a predominantly male, second-year student population with an average age of 21. Among perceived barriers, Patient-related barriers scored the highest (Mean = 40.72  $\pm$  7.22), followed by student-related (17.93  $\pm$  3.45) and environment-related barriers (14.17  $\pm$  2.92).

This descriptive analysis was performed to evaluate the level and distribution of communication barriers among undergraduate students in a tertiary care hospital. Measures such as mean, median, standard deviation, range, and skewness provide insight into the central tendency, variability, and shape of the data distribution.

Overall, the findings suggest that communication barriers are present at a moderate to high level among undergraduate students, with relatively consistent responses and slight variation. The data distribution is approximately normal with a small negative skew, supporting the suitability of parametric statistical tests for further analysis.

This multiple linear regression was performed to examine the extent to which demographic and professional factors (age, gender, year of study, and clinical experience) predict communication barriers among the study participants.

Table 3: Multiple Linear Regression Analysis Predicting Communication Barriers (n = 151)

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	.108 <sup>a</sup>	.012	-.015		12.46119

ANOVA<sup>a</sup>

Model	Sum Squares	Df	Mean Square	F	Sig.
1					
Regression	269.113	4	67.278	.433	.784 <sup>b</sup>
Residual	22,671.059	146	155.281		
Total	22,940.172	150			

Predictor	B	Std. Error	Beta	T	Sig.	95%CI Lower	95%CI Upper
(Constant)	67.206	8.697	-	7.728	<.001	50.018	84.394
Age	0.365	0.431	0.078	0.847	0.398	-0.487	1.218
Gender	-1.952	2.438	-0.067	-0.801	0.425	-6.771	2.866
Year of Study	-0.629	1.311	-0.047	-0.480	0.632	-3.220	1.962

Clinical Experience	0.725	1.445	0.049	0.501	0.617	-2.132	3.581
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**Coefficients<sup>a</sup>**

This multiple linear regression was conducted to predict **communication barriers** from four predictors: age, gender, year of study, and clinical experience. The overall model was not statistically significant,  $F(4, 146) = 0.433$ ,  $p = 0.784$ . This indicates that the set of predictors (age, gender, year of study, and clinical experience) together do not significantly explain variation in communication barriers.

The coefficient of determination ( $R^2 = 0.012$ ) shows that the model explains only 1.2% of the variance in communication barriers. The adjusted  $R^2$  was negative (-0.015), further confirming that the model has poor explanatory power and performs worse than a simple mean-based prediction after accounting for the number of predictors. The multiple correlation coefficient ( $R = 0.108$ ) also reflects a very weak linear relationship between the predictors and the outcome variable.

Examination of the individual predictors revealed that none of the variables made a statistically significant unique contribution to predicting communication barriers (all  $p > 0.05$ ):

- **Age** ( $B = 0.365$ ,  $\beta = 0.078$ ,  $t = 0.847$ ,  $p = 0.398$ ): A one-year increase in age was associated with a negligible increase of 0.365 units in communication barriers (holding other variables constant), but this was not significant.
- **Gender** ( $B = -1.952$ ,  $\beta = -0.067$ ,  $t = -0.801$ ,  $p = 0.425$ ): Gender showed a small negative association, but it was not statistically significant.
- **Year of Study** ( $B = -0.629$ ,  $\beta = -0.047$ ,  $t = -0.480$ ,  $p = 0.632$ ): An increase in year of study was linked to a slight decrease in communication barriers, though not significant.
- **Clinical Experience** ( $B = 0.725$ ,  $\beta = 0.049$ ,  $t = 0.501$ ,  $p = 0.617$ ): More clinical experience was associated with a small increase in reported communication barriers, but again, the relationship was not significant.

The 95% confidence intervals for all unstandardized coefficients ( $B$ ) include zero, reinforcing that none of the predictors reliably predict communication barriers in this sample.

## DISCUSSION

Effective communication serves as the fundamental cornerstone of high-quality nursing care, particularly within the complex and high-stakes environment of tertiary care hospitals[1, 17]. The results of the current study, which involved 151 undergraduate nursing students, offer a sophisticated understanding of the various obstacles that prevent therapeutic connections from being established in clinical practice. With an overall mean score of 72.82, the main finding indicates that there are moderate to high levels of communication barriers. Interestingly, the results show a clear hierarchy of perceived obstacles, with patient-related factors (Mean 40.72) being the most significant, followed by student-related factors (Mean 17.93) and environment-related barriers (Mean 14.17). This distribution indicates that although trainees have a certain degree of self-perceived competence, the most difficult obstacles for new practitioners are still external ones, particularly those resulting from the clinical and behavioral status of the patients. Given the difficult nature of the tertiary care system, where patients frequently enter with severe clinical problems, patient-related variables predominate as the main obstacle. Problem, patient-related variables Patients' capacity and willingness to participate in conversation are significantly hampered when they are experiencing acute pain or physical discomfort. This finding is consistent with other research that found that the severity of a disease is a major barrier to engagement[1, 3]. Furthermore, the study identifies that patients' lack of awareness regarding the duties of nursing students contributes to a lack of trust and potential resistance[1]. The qualitative findings of Riaz et al. (2025), who discovered that disrespectful behavior and a negative perception of the nursing profession among patients and attendants frequently result in student nurses feeling reluctant and anxious, confirm this interpretation. This leads to a vicious cycle where student communication is hampered by patient mistrust, further solidifying the lack of connection[13]. In contrast to AlMarzooq et al. (2024), who observed moderate barrier levels among Saudi nursing students with a similar focus on patient conditions. Even though AlMarzooq et al. reported that religious differences were the highest-rated sub-category (45%). [1]. The absence of statistical significance among demographic variables was a noteworthy and perhaps surprising finding of the present investigation. Age, gender, year of study, and clinical experience did not substantially predict communication difficulties, according to

the multiple linear regression analysis ( $p=0.784$ ). This result runs counter to a significant amount of global research. For example, Mersha et al. (2023) showed that professional qualification and age were strong favorable predictors of therapeutic communication abilities in Ethiopia. In a similar vein, Carballedo-Pulido et al. (2026) discovered that female students outperformed their male counterparts in the communication dimensions of problem-solving and relationship-building in a Spanish cohort[15]. Furthermore, the gendered experience of nursing may be changing in the cultural context of South Asia or Saudi Arabia, where several of these research[4]. Although previous research by Bit-Lian et al. (2020) indicated that gender differences present significant communication challenges, the current study's male-dominated cohort indicates that communication difficulties are a common professional issue that goes beyond sex in this particular academic setting[1, 4]. Furthermore, the non-significance of the "Year of Study" as a predictor ( $p = 0.632$ ) implies that there may not be enough clinical maturity gain from the first to the second year to allay communication anxiety. This is consistent with observations made in Korea by Jeon and Choi (2021), This suggests that clinical exposure alone, in the absence of planned pedagogical intervention, is insufficient for the development of complex social skills[6]. The results of Nasmil and Seneviratne (2020) in Sri Lanka<sup>10</sup> are directly at odds with the hierarchy found in this study, which places patient factors at the top. According to their research, student-related barriers had the lowest overall mean score, while nurse-related barriers more especially, unfavorable views from senior staff had the highest. Given that environment and student-related elements were regarded as moderate, the results of the current study point to a more encouraging or possibly less obvious internal professional hierarchy. It is important to note that the mild ranking of environmental barriers (Mean 14.17) does not imply that there is no difficulty. According to Alharazi et al. (2025), tertiary care settings are infamously crowded, noisy, and high-traffic regions, which are significant obstacles that lead to stress and lower job satisfaction among nurses[1]. They may not yet be completely aware of the systemic organizational challenges that more seasoned nurses recognize as crucial, such as poor staff performance or a lack of administrative support, because they are more preoccupied with the immediate "dyad" of the nurse-patient contact[18]. When these findings are included into Campinha-Bacote's (2002) Cultural Competence Model, There may be a lack

of transcultural nursing education that covers how to deal with impolite behavior or low health literacy in a clinical context, as indicated by the high level of patient-related barriers (40.72)[1]. relevant research indicates that students' early clinical rotations are characterized by widespread anxiety and low self-esteem[1, 9]. According to Vahidi et al. (2025), 56% of students don't speak up in crucial situations because they feel helpless and undervalued. This finding may help to explain why student-related barriers were still a considerable issue in the current study[10]. Higher clinical communication competency is directly correlated with higher caring capacity ( $r = 0.490$ )<sup>5</sup>, as demonstrated by Cheng et al. (2025). The results have significant ramifications for hospital policy and nursing education. First, tertiary care hospitals need to have regulations in place to control the presence of attendants and companions since patient-related considerations are the main obstacle. Adopting a "one patient, one attendant" policy could reduce noise and confidentiality violations, creating a more favorable learning environment for students. Overcrowded bedsides and family interference can seriously impair the Student's capacity. When students grasp communication concepts in the classroom but find them "intimidating" in real-life situations, there is a clear "theory-practice gap"[10]. As a result, more simulation-based training using standardized patients (SPs) must be included in nursing curricula. Systematic reviews have demonstrated that simulation is the most common and successful intervention for enhancing patient-centered communication skills because it gives students a safe environment in which to practice responding to verbal and nonverbal cues[9]. Longitudinal studies that follow students from their first year through their internship should replace cross-sectional descriptive strategies in future research[1, 9]. This would make it clearer whether the demographic invariance observed in this study continues as students acquire more expertise. Additionally, it is imperative to incorporate the "patient's perspective [1, 10, 13]. The majority of recent research, including this study, is based on self-reports from nurses or students, which are prone to social desirability bias [1, 13, 15]. Gaining insight into how patients view these exchanges may help identify communication facilitators that students are currently ignoring[1, 13].

## CONCLUSION

According to the study's findings, the "patient" is the main cause of communication problems for undergraduate nursing students, far more so than internal or external student-related problems. The absence of demographic variables implies that communication difficulties are a common problem for new nurses, made necessary by the demanding and complicated clinical setting of tertiary care hospitals. Nursing education must change from merely academic instruction to immersive, simulation-based training that develops "caring ability" and equips students with the psychological and linguistic skills necessary to negotiate the unpredictable terrain of patient engagement in order to close this gap. Effective communication is ultimately a talent that is "practiced" and "refined" through a supportive organizational culture that places a higher priority on patient-centeredness than task-oriented routines.

## LIMITATIONS:

This study's contribution to the literature in a tertiary care setting, which focuses on a student population that is predominately male and is frequently underrepresented in conventional nursing research, is a noteworthy strength. The hierarchy of barriers can be robustly validated by using both descriptive and inferential statistics. However, the study's two-institution design limits the extent to which the findings can be applied to Hyderabad's nursing student population. Additionally, because self-administered questionnaires are used, the results are based on students' "perceptions" rather than their "actual observed performance" in the clinical context.

## RECOMMENDATIONS:

To increase undergraduate nursing students' communication abilities and improve patient care outcomes, nursing schools and hospitals should bolster simulation-based communication training, encourage culturally sensitive practices, and establish supportive clinical environment.

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